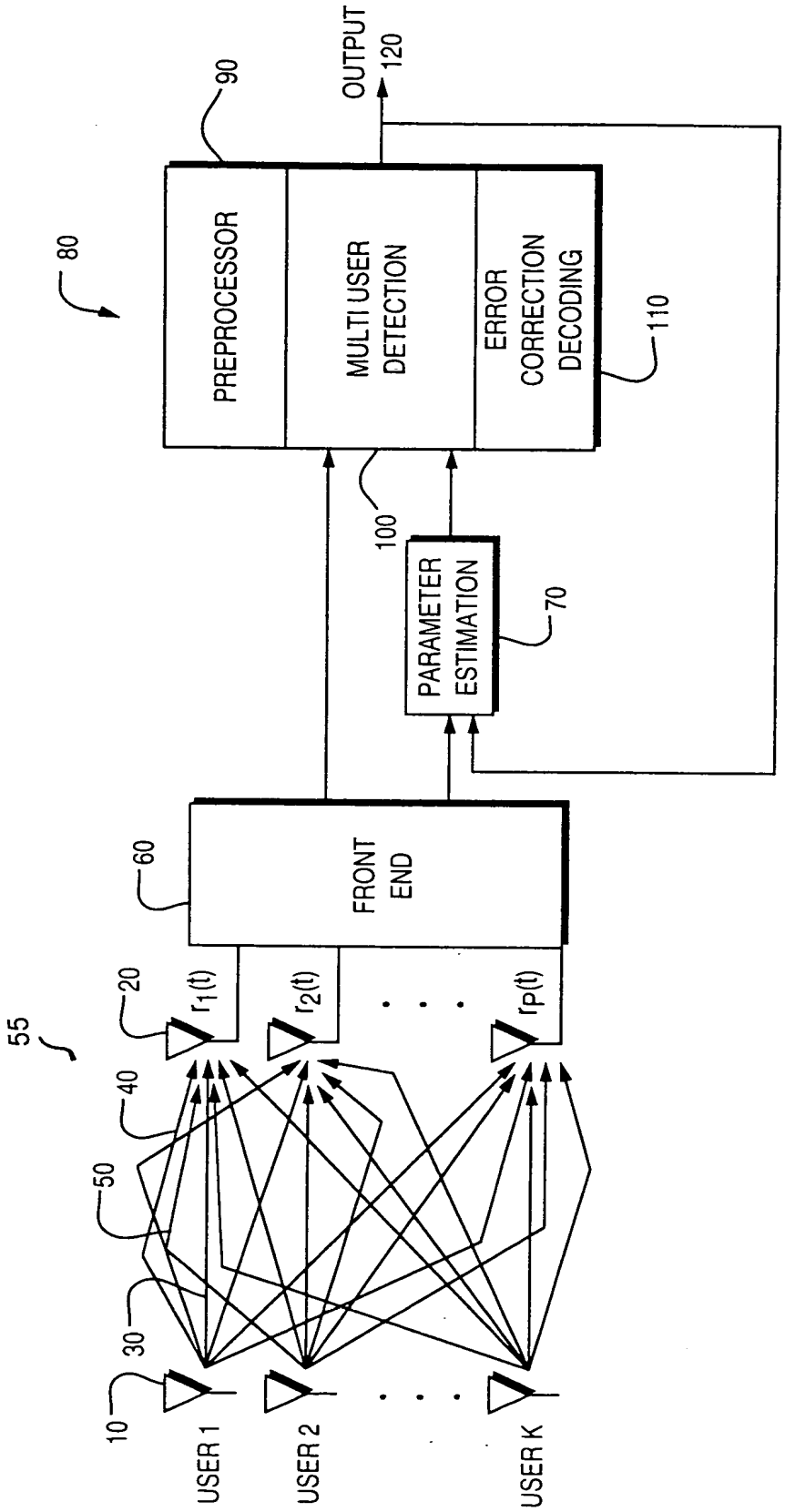
OUTPUT
120
90
80
PREPROCESSOR
MULTI USER DETECTION
ERROR CORRECTION DECODING
110
100
PARAMETER ESTIMATION
70
FRONT END
60
55
20
$r_1(t)$
$r_2(t)$
$r_P(t)$
40
50
30
10
USER 1
USER 2
USER K

FIG. 1

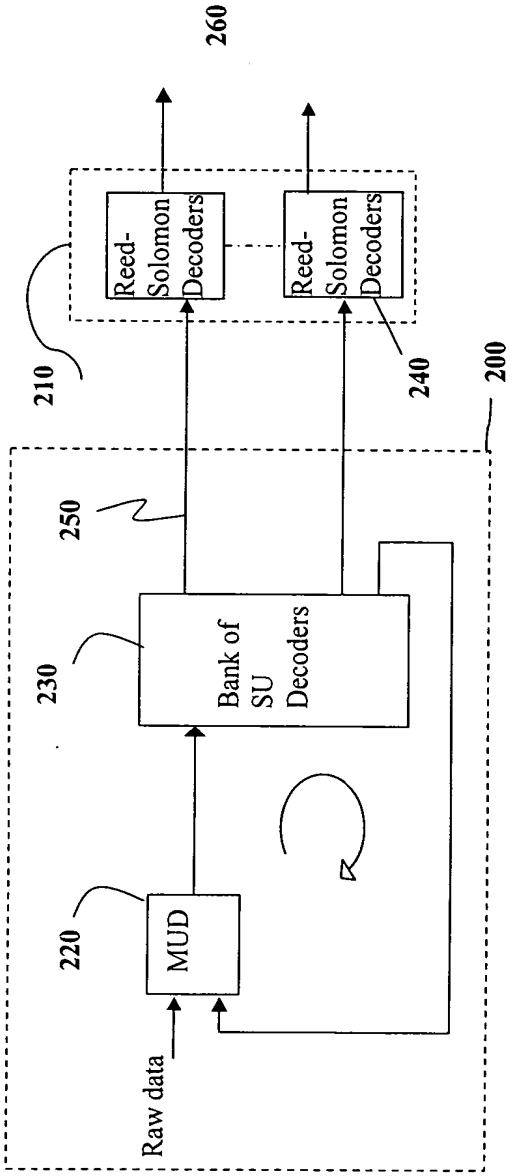

Figure 2a (PRIOR ART)

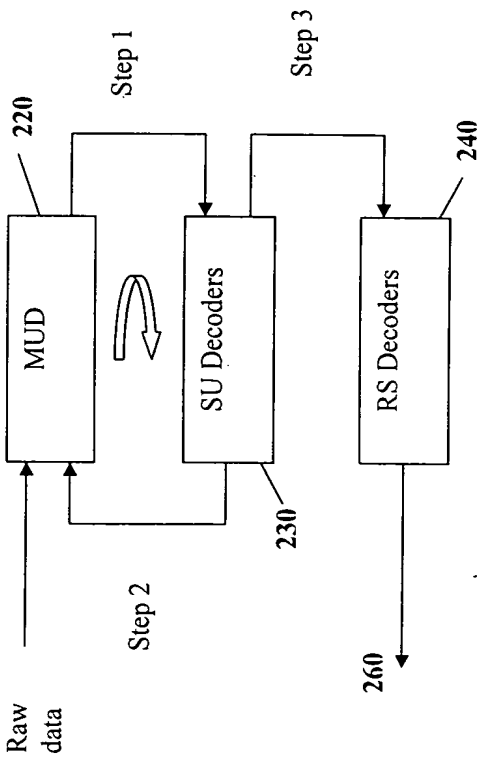

Figure 2b (PRIOR ART)

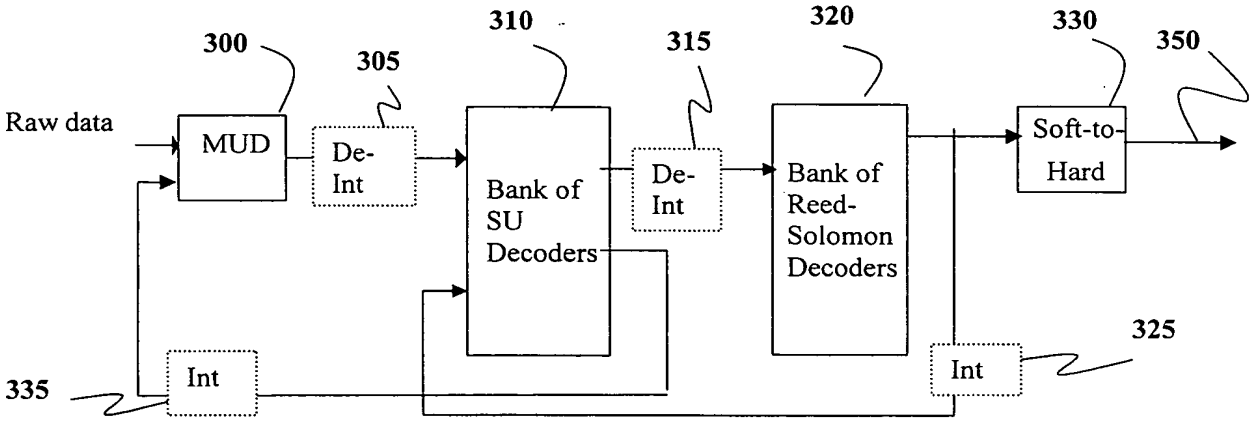

Figure 3a

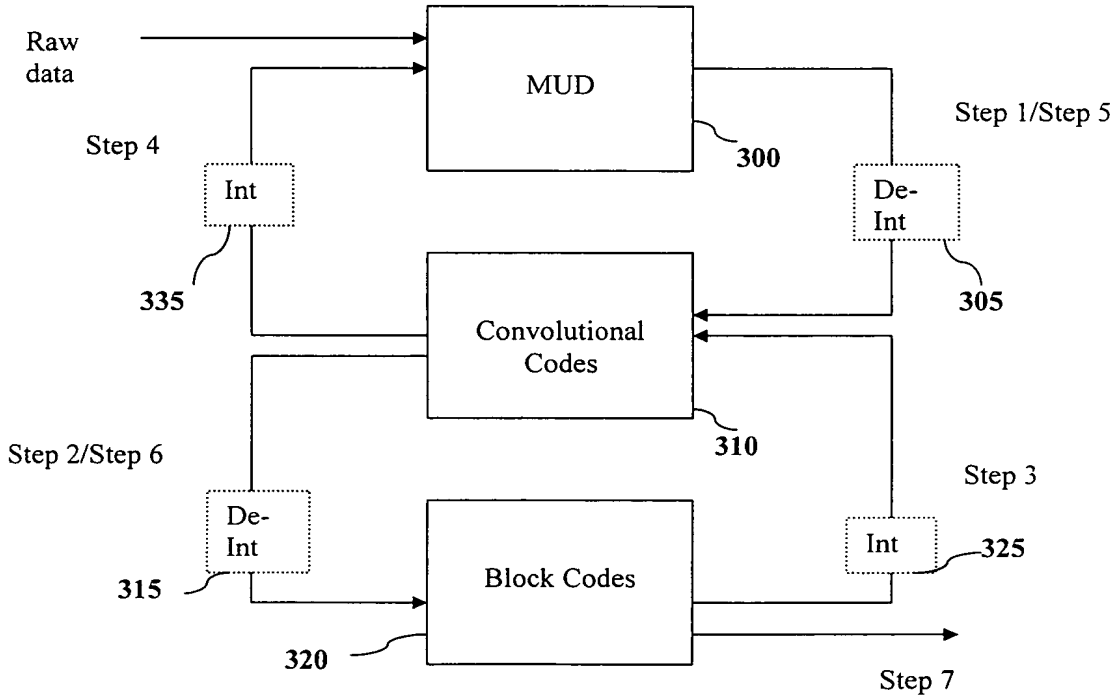

Figure 3b

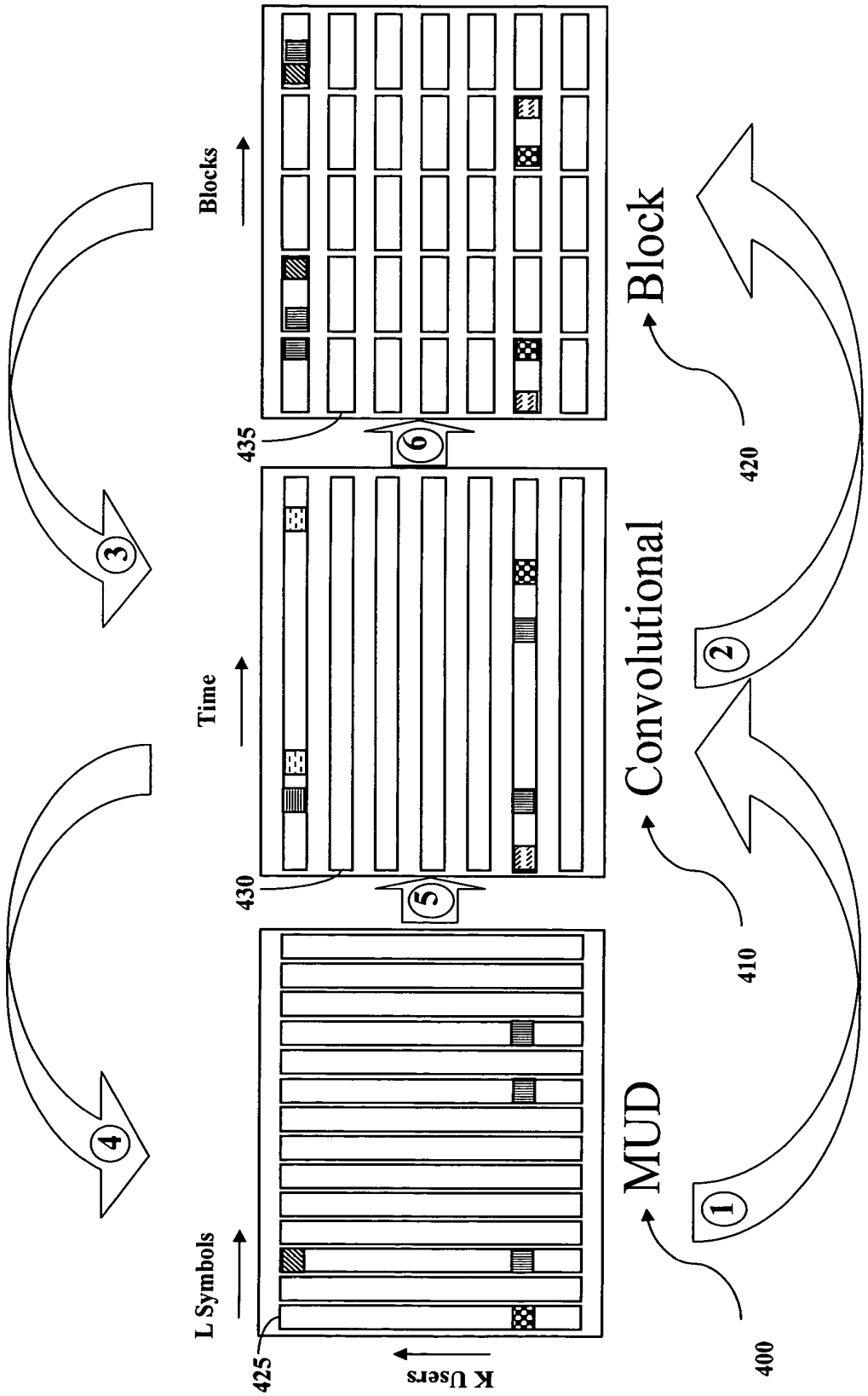
Blocks
Time
L Symbols
K Users
435
430
425
420
410
400
Block
Convolutional
MUD
1
2
3
4
5
6

Figure 4

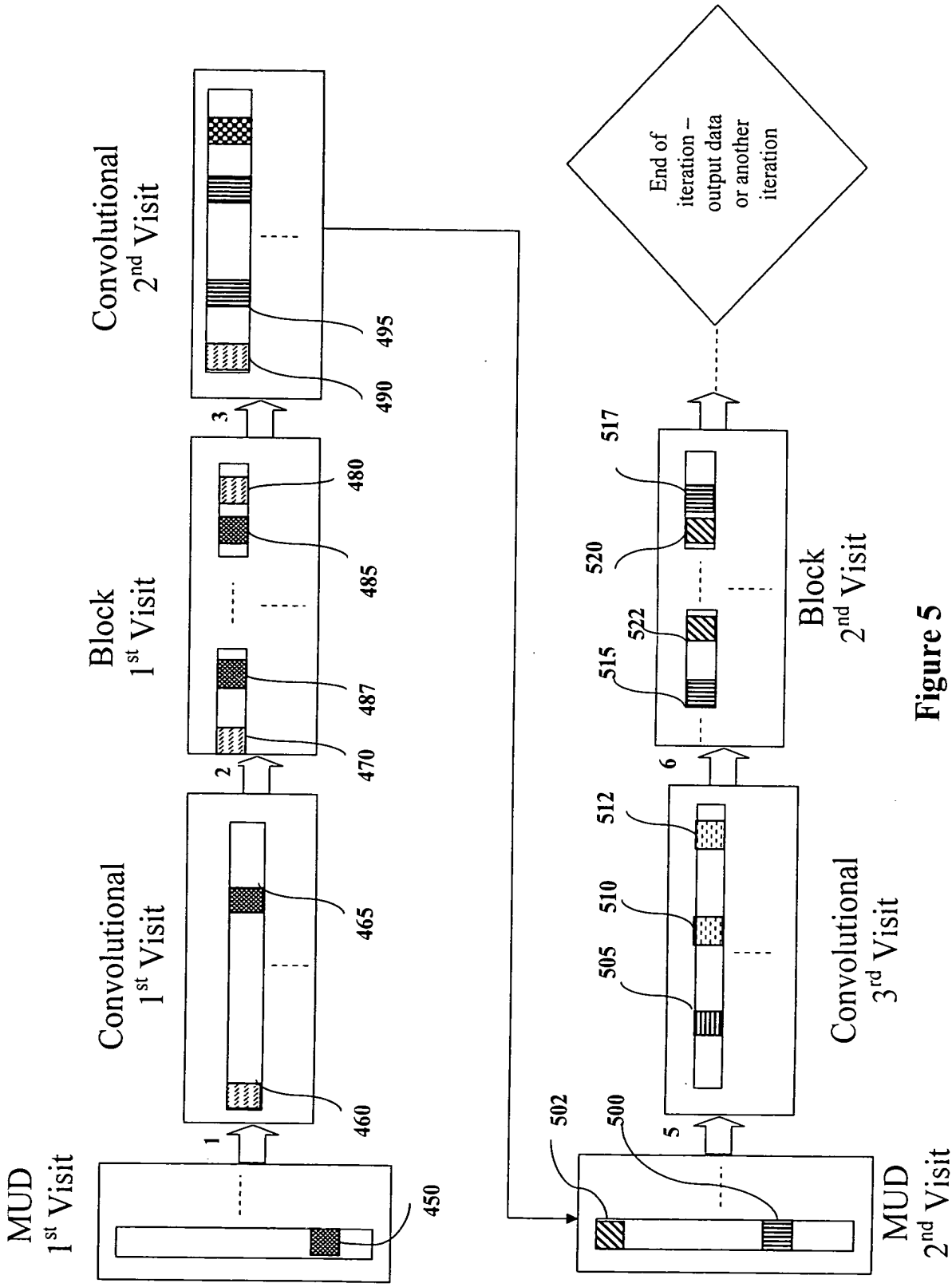
MUD 1st Visit
Convolutional 1st Visit
Block 1st Visit
Convolutional 2nd Visit
MUD 2nd Visit
Convolutional 3rd Visit
Block 2nd Visit
End of iteration – output data or another iteration
450
460
465
470
480
485
487
490
495
500
502
505
510
512
515
517
520
522
1
2
3
5
6

Figure 5

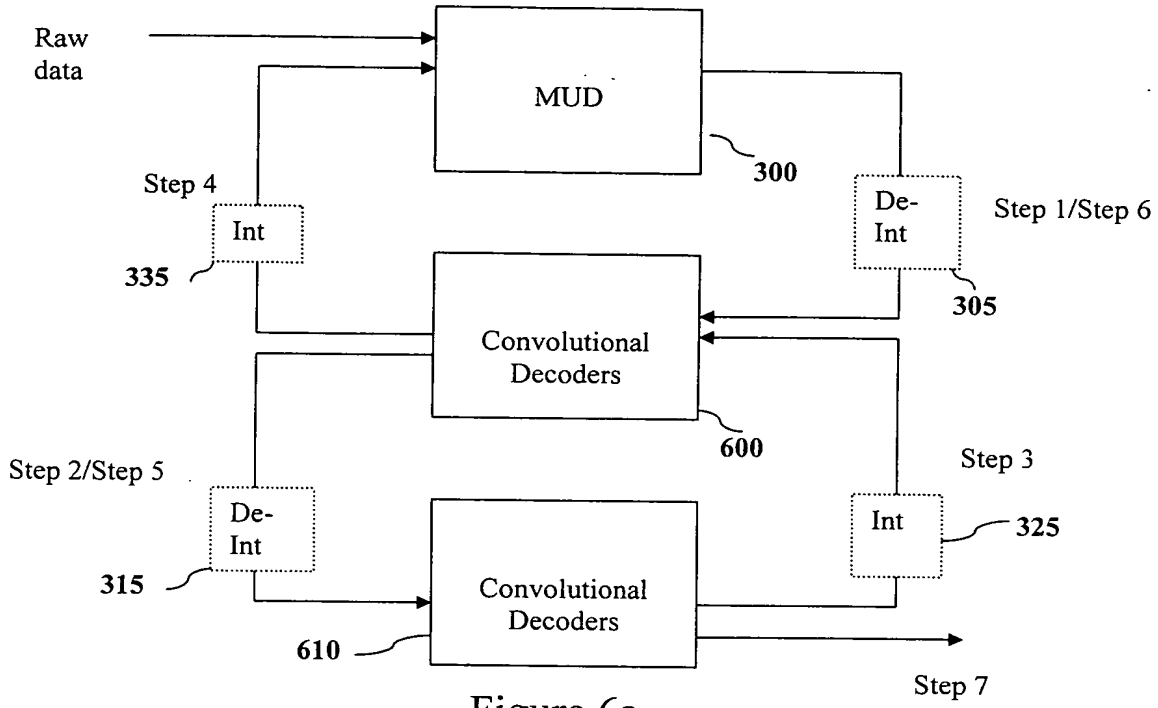

Figure 6a

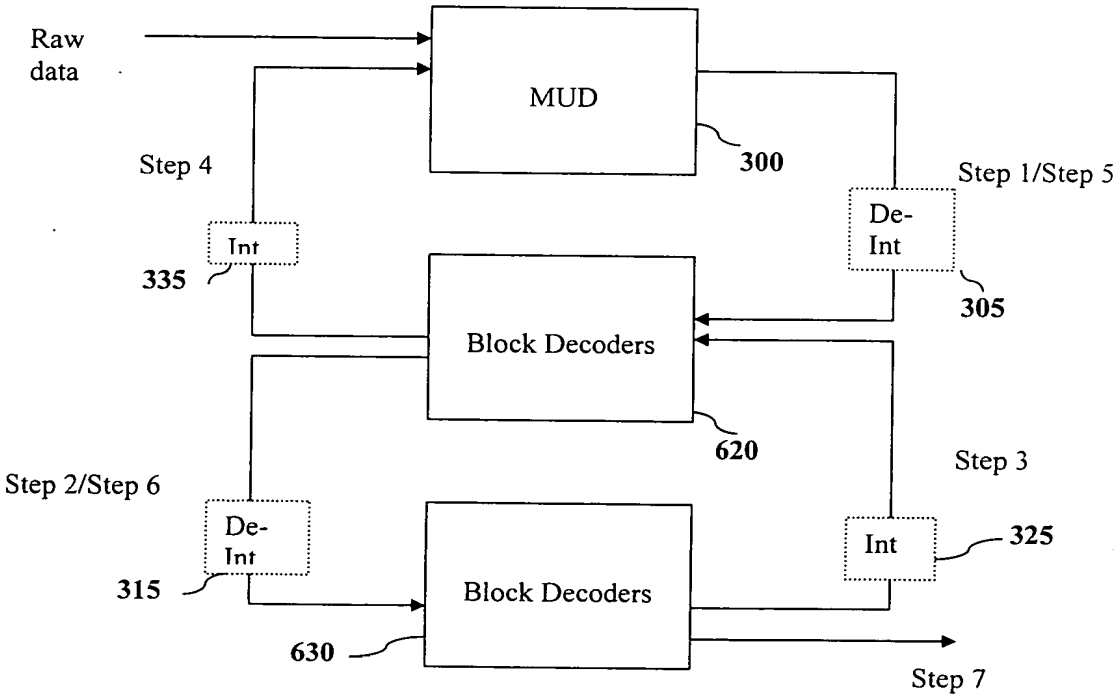

Figure 6b

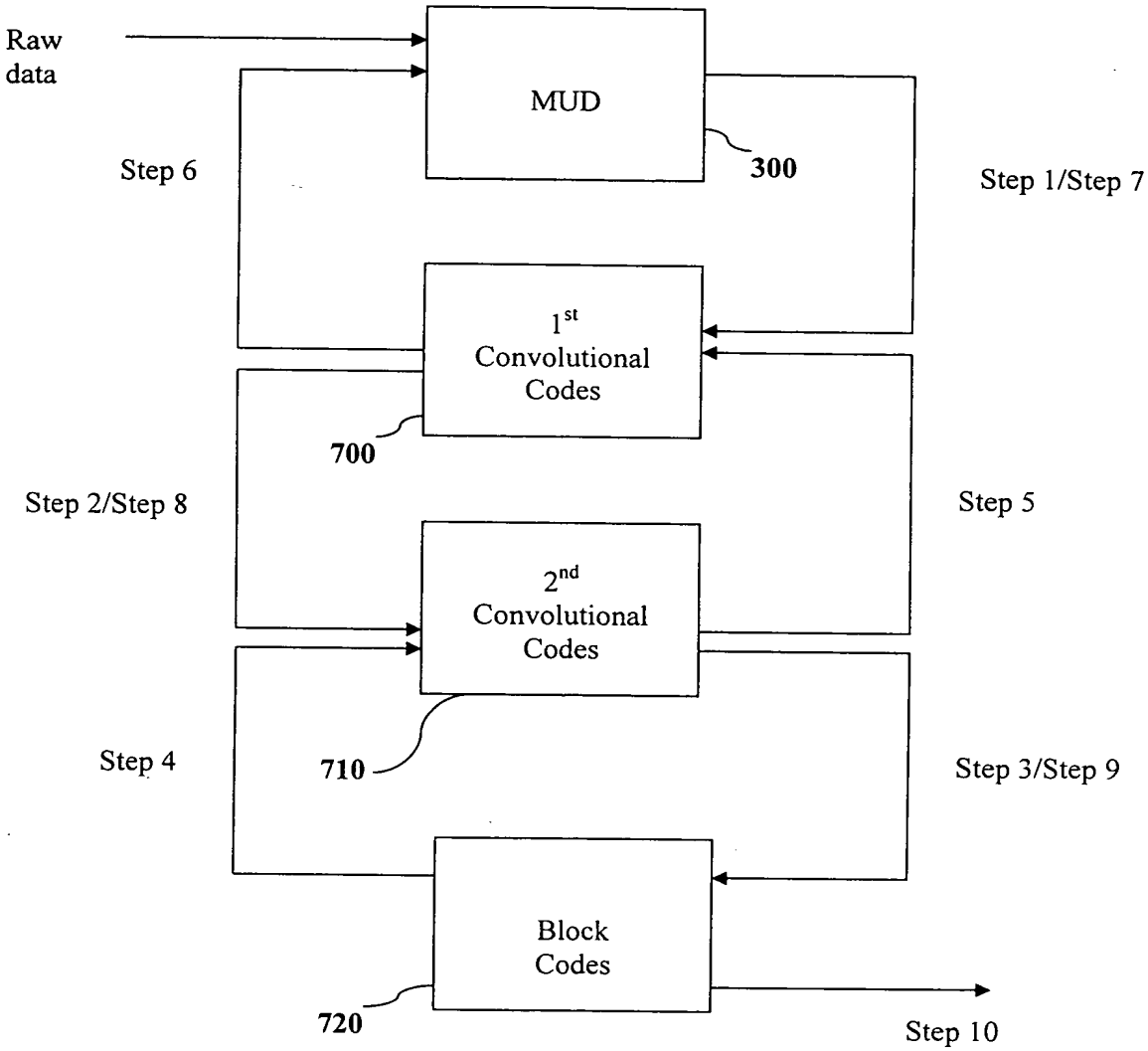
Raw data
MUD
300
Step 6
Step 1/Step 7
1st Convolutional Codes
700
Step 2/Step 8
Step 5
2nd Convolutional Codes
710
Step 4
Step 3/Step 9
Block Codes
720
Step 10

Figure 7